MICROSOFT FLIGHT SIMULATOR X

USS GRIDLEY DDG 101
USS SAMPSON DDG 102
USS STERETT DDG 104
USS KIDD DDG 100

DELTASIM STUDIO
2011

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USS GRIDLEY (DDG-101) source: WIKIPEDIA

The fourth USS Gridley (DDG-101) is the fifty-first Arleigh Burke-class destroyer in the United States Navy. Gridley is named after Captain Charles Gridley, Commander of Admiral George Dewey's flagship Olympia, (Flag Captain) and recipient of Admiral Dewey's famous command, "You may fire when you are ready, Gridley" in the Battle of Manila Bay during the Spanish-American War.

In May 2004, the Secretary of the Navy announced the names of five new Arleigh Burke class destroyers, including Gridley. Her keel was laid on 30 July 2004 at the Bath Iron Works in Bath, Maine. She was christened on 11 February 2006. The Gridley was commissioned at the Port of Miami on Saturday, February 10, 2007.

She has joined the Pacific Fleet and is homeported at Naval Base San Diego.

General characteristics

Displacement: 9,200 long tons (9,300 t)

Length: 509 ft 6 in (155.30 m)

Beam: 66 ft (20 m)

Draught: 31 ft (9.4 m)

Propulsion: 4 × General Electric LM2500-30 gas turbines, 2 shafts, 100,000 shp (75 MW)

Speed: >30 kn (56 km/h; 35 mph)

Complement: 380 officers and enlisted

Armament: One 32-cell and one 64-cell Mk 41 vertical launch systems, with 96 RIM-66 SM-2, BGM-109 Tomahawk, or RUM-139 VL-Asroc, missiles

1 × 5 in (127 mm)62 cal MK 45, 2 x 25 mm, 4 x 12.7 mm guns

2 x Mk 46 triple torpedo tubes

Aircraft carried: 2 x SH-60 Sea Hawk helicopters

USS SAMPSON (DDG-102) source: WIKIPEDIA

USS Sampson (DDG-102) is an Arleigh Burke-class destroyer in the United States Navy. She was authorized in 2002 and is the fourth U.S. Navy ship named to honor Rear Admiral William T. Sampson.

She was built by Bath Iron Works in Bath, Maine. At her christening on 16 September 2006, the principal address was delivered by Senator Susan Collins of Maine, and the vessel was christened by Clara Parsons, great-granddaughter of R.Adm. Sampson and daughter of William Sterling Parsons, as the ship's sponsor. Commander Philip Roos is the ship's first commanding officer.

She was commissioned in Boston, Massachusetts on 3 November 2007.

General characteristics

Class and type: Arleigh Burke class destroyer

Displacement: 9,200 tons

Length: 509 ft 6 in (155.30 m)

Beam: 66 ft (20 m)

Draft: 31 ft (9.4 m)

Propulsion: 4 × General Electric LM2500-30 gas turbines, 2 shafts, 100,000 shp (75 MW)

Speed: 30+ knots (55+ km/h)

Complement: 383 officers and enlisted

Armament: 1 × 32 cell, 1 × 64 cell Mk 41 vertical launch systems, 96 × RIM-66 SM-2, BGM-109 Tomahawk or RUM-139 VL-Asroc, missiles

1 × 5/62 in (127/62 mm), 2 × 25 mm, 4 × 12.7 mm guns

2 × Mk 46 triple torpedo tubes

Aircraft carried: 2 × SH-60 Sea Hawk helicopters

USS STERETT (DDG-104) source: WIKIPEDIA

USS Sterett (DDG-104), an Arleigh Burke-class destroyer, is the fourth ship of the United States Navy to be named in honor of Andrew Sterett, a naval officer who served during the Quasi-War and the Barbary Wars.

The contract to build her was awarded to Bath Iron Works Corporation in Bath, Maine on 13 September 2002. On 17 November 2005, her keel was laid down.

She was christened on 19 May 2007. The ship's sponsor was Michelle Sterett Bernson, a familial descendant of Andrew Sterett, who himself had no children.

Her commissioning took place in Baltimore, Maryland, Andrew Sterett's birthplace, on 9 August 2008. The ship's home port is Naval Base San Diego.

The ship was attacked without warning by Somali pirates using rocket-propelled grenades on February 22, 2011, during negotiations with the pirates for the release of four U.S. hostages, who were eventually killed.

General characteristics

Class and type: Arleigh Burke class destroyer

Displacement: 6,600 tons light, 9,200 tons full, 2,600 tons dead

Length: 509 ft 6 in (155.3 m) overall, 471 ft (143.6 m) waterline

Beam: 66 ft (20.1 m) extreme, 59 ft (18 m) waterline

Draft: 31 ft (9.4 m) maximum, 22 ft (6.7 m) limit

Propulsion: 4 × General Electric LM2500-30 gas turbines, 2 shafts, 100,000 shp (75 MW)

Speed: 30+ knots (55+ km/h) designed

Complement: 32 officers, 348 enlisted

Armament: 1 × 32 cell, 1 × 64 cell Mk 41 vertical launch systems, 96 × RIM-66 SM-2

BGM-109 Tomahawk or RUM-139 VL-Asroc missiles

1 × 5/62 in (127/62 mm)

2 × 25 mm

4 × 12.7 mm guns

2 × Mk 46 triple torpedo tubes

Aircraft carried: 2 × SH-60 Sea Hawk helicopters

DDG-101

DDG-102

DDG-104

DDG-104 helipad and hangars

SYSTEM REQUIREMENTS

- Windows XP, Vista, Windows 7
- Microsoft Flight Simulator X (with SP2 or Acceleration)
- 2 GB RAM memory (minimum)
- 512 MB graphic card with DirectX 9.1 (minimum)
- Fast processor (dual core minimum)
- Yoke or Joystick (in this case yoke is better and realistic)
- Adobe Reader for free available here: http://www.adobe.com/products/reader/tech-specs.html

Automatic lean – does not require joystick with a vertical axis

TECHNICAL DATA

- Moving parts:

  steering wheel, throttle, switches, doors, knobs, cleats, masts, gangway, helipad nets, captain, helipad operator, hangar doors, gantry with ropes, hook and cargo-box, heli-carriages, windshield wipers, launcher flaps, torpedo launchers, rockets, torpedoes, cannon, flags - first time in 3 dimensions

- Controlled animation:

  speed, reverse engine, turns with automatic leans, lights, anchor, hangar doors, helipad nets, gangway, all launchers. cannon – vertically and horizontally.

- Virtual cockpit:

  helm with full 3D equipments, full interior model with 20 camera definitions.

- Speed max:

  30+ knots

- Starter:

  one touch starter (double)

- Armament:

  16 SM2 rocket (bow section),
  15 projectiles – air type 127 mm
  15 projectiles – land type 127 mm
  2 x MK46 triple tubes with 6 torpedoes

- Model:

  4 models: DDG-101, DDG-102, DDG-104, DDG-100 for AI

- Documentation:

  Included

- Disk space:

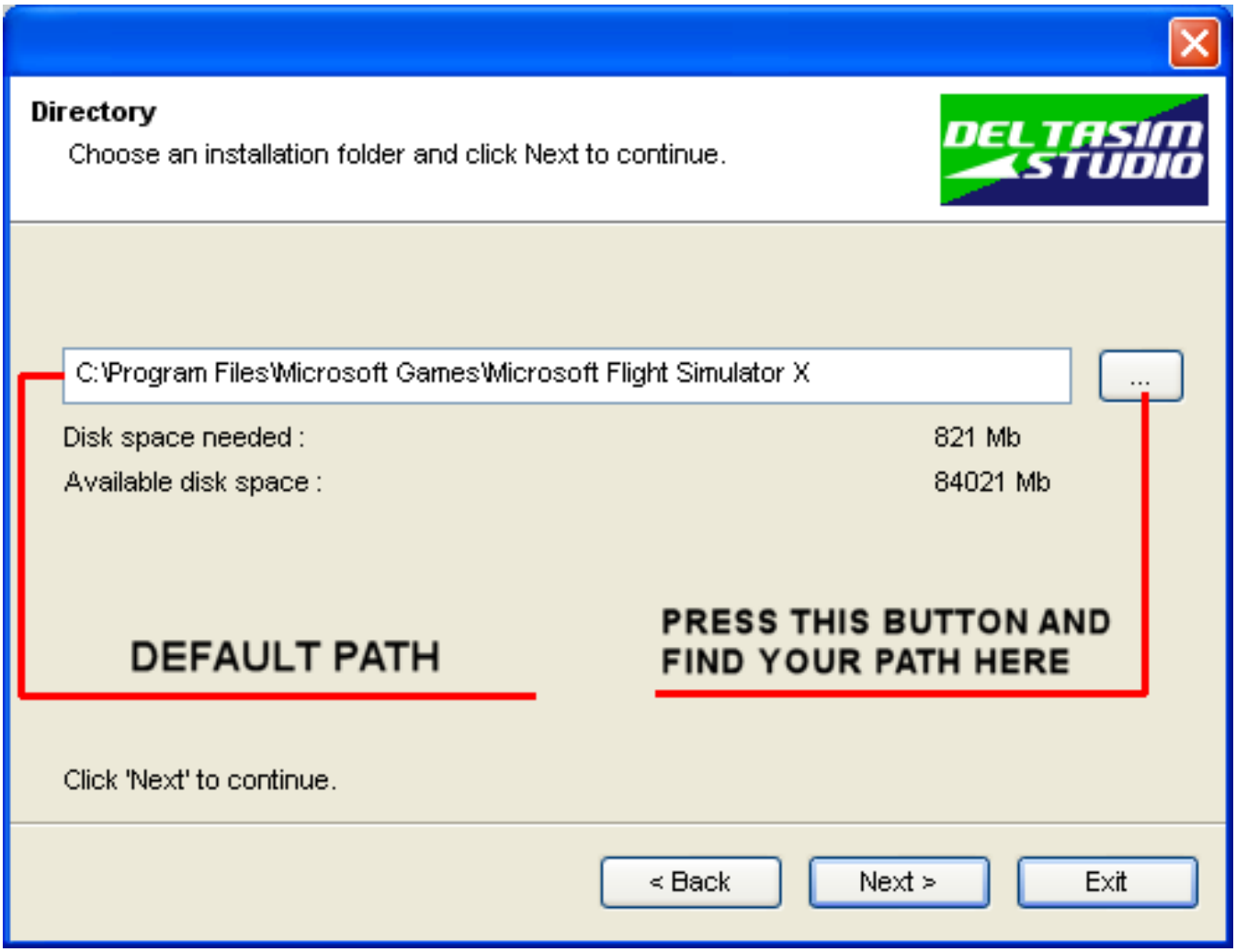
  approx. 836 MB

INSTALLATION

32 BIT SYSTEM (WINDOWS XP, VISTA, WINDOWS 7)

Start the install program and when it will be shown the window “DIRECTORY” press “NEXT” button if your FSX was installed with default path – as below.

If your FSX was installed in other place, i.e. D:\Games\Microsoft Flight Simulator X type your path by hand or press the button then find your path on the local disk.



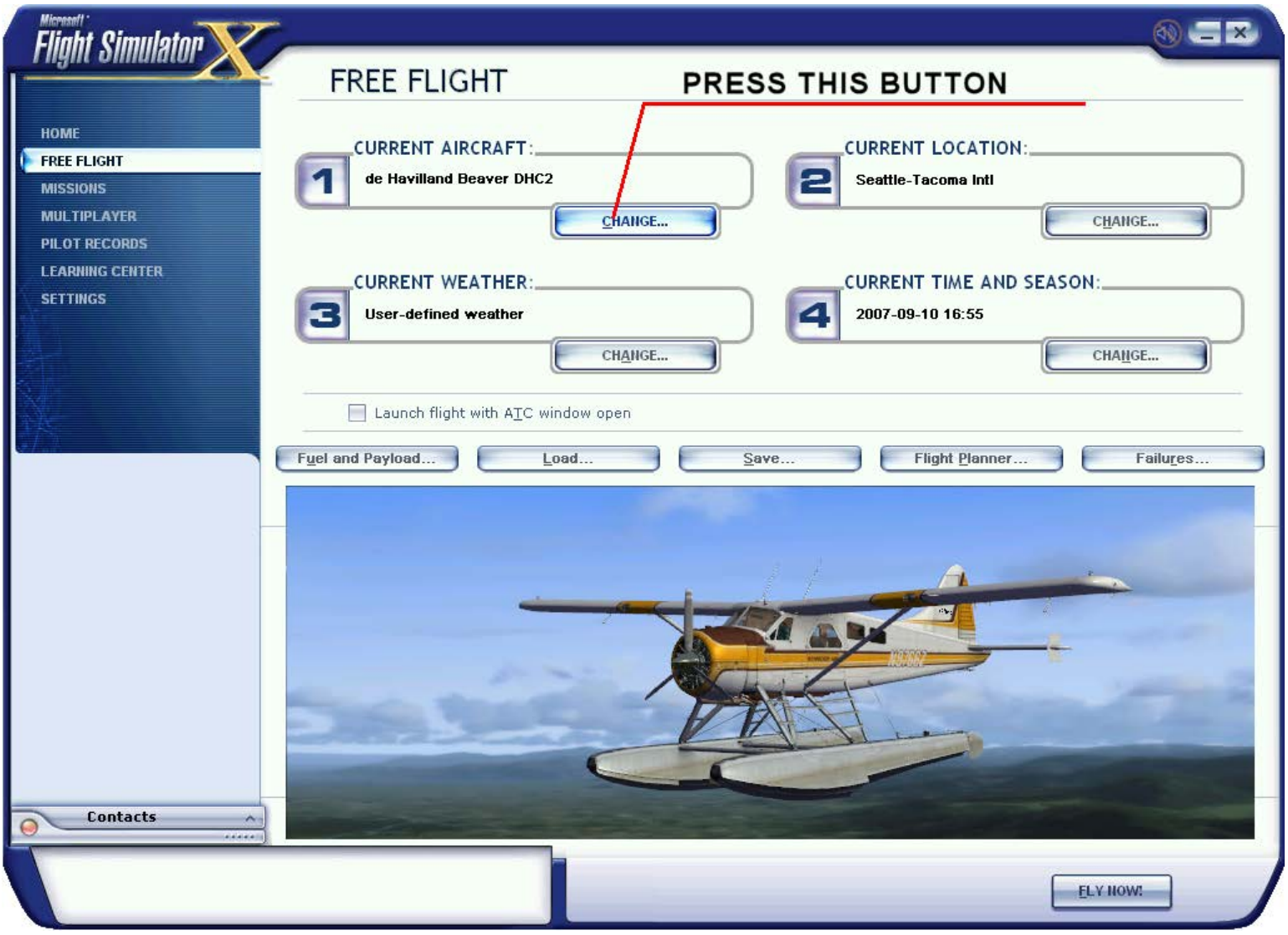
64 BIT SYSTEM

All the same as above with one difference: install in Program Files 86.

START

Now you need put your FLIGHT into proper directory. Go to the ZIP archive (just downloaded) then find folder: FLIGHT SIMULATOR X FILES – copy and paste it to MY DOCUMENTS folder on your computer.

After installation run FSX and go to the “FREE FLIGHT” window then press “CHANGE” in the “CURRENT AIRCRAFT” section – as below.



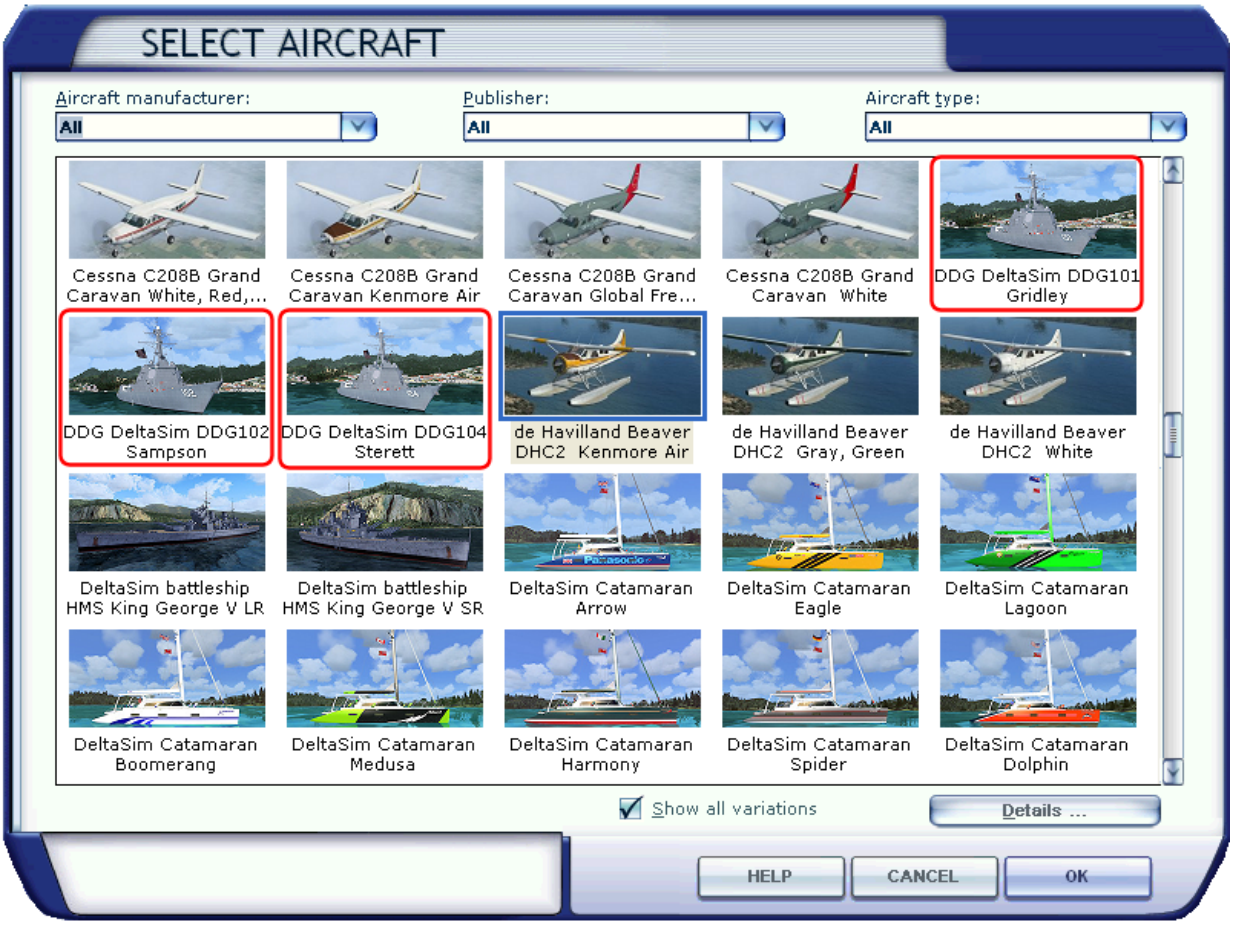
Next adjust all column:

Aircraft Manufacturer ……ALL

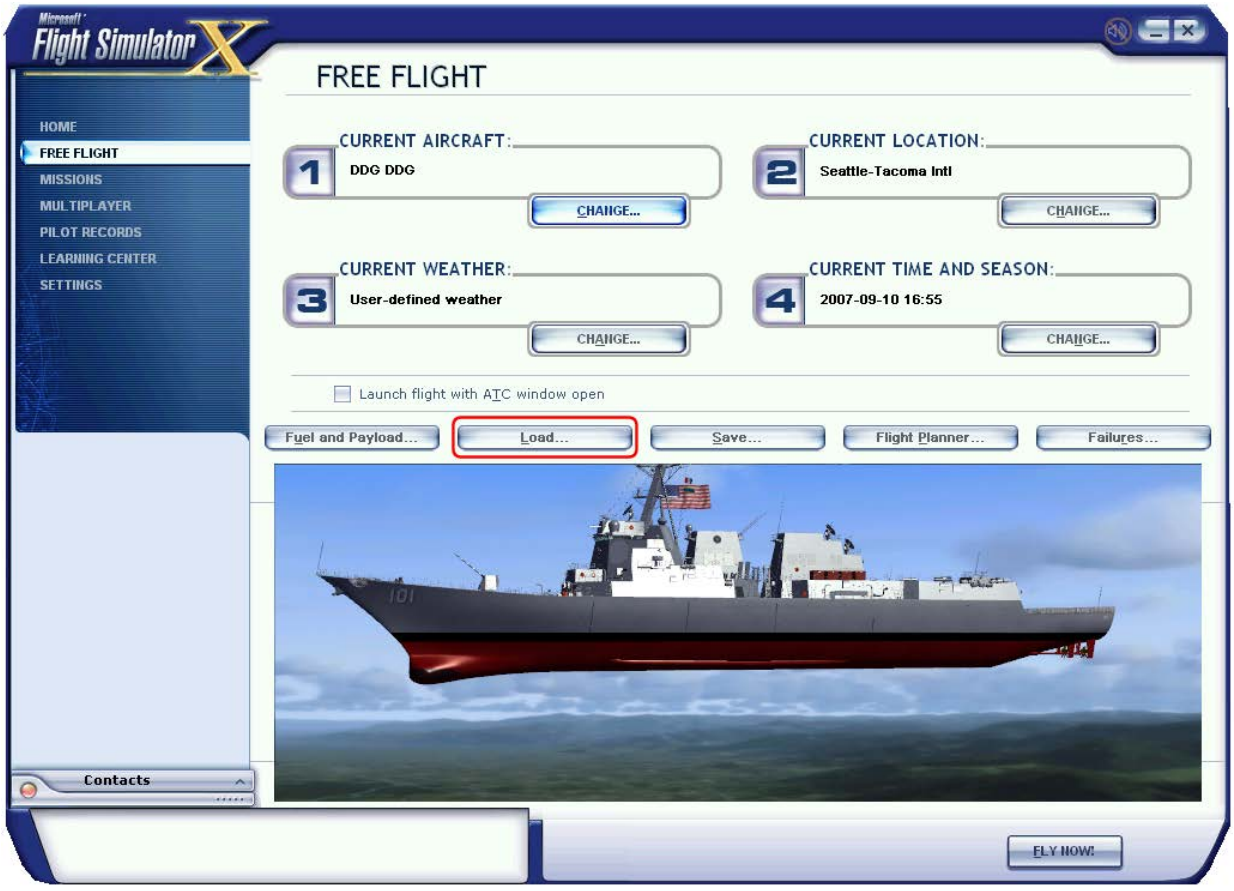
Publisher ……ALL

Aircraft Type……ALL

And select: Show all variations - how below, choose DDG ship then click OK.



I.e. selected DDG-101. Now press “LOAD” button and select: Deltasim DDG Destroyer and press “FLIGHT NOW” button. Now you are in the water.



FIRST TIME START PROCEDURE

- Start with any float airplane
- Land in the water when you will sail
- Stop and switch off the engine (s)
- Change the airplane with selected ship
- If you want to start from this position next time, save the flight
- Sail

USS Sterett (DDG-104)

DDG-100 FOR AI

This AI model works with AICarriers2

Using AI DDG-100 KIDD

- Install AICarriers 2 (freeware, you can find it at Flightsim.com or Avsim)
- Go to C:\Program Files\AICarriers
- Open the aicarriers.cfg file with notepad
- Add this ship to [formation.8] (change default entry with the new one - below)
- It should look like this:

[formation.8]

title=DDG destroyer

unit.0=DDG_100_Kidd, 0, 0

That is all.

Next follow AICarriers instruction.

In FSX you will find DDG-100 in AICarrier menu at position 9.

CAPTAIN BRIDGE

Main panel has all the necessary instruments – all clearly described. Only shortcuts on the switches part require description.

- BAT…….battery
- RED……..helm red light
- WHT……..helm white light
- NAV…….navigation lights
- REF…….reflectors
- DCK…….deck lights
- ANR…….anchor cast/rise
- GNG……..gangway
- WPR…….wipers

Helm door you can open/close by the knob touching.

Helm by dusk

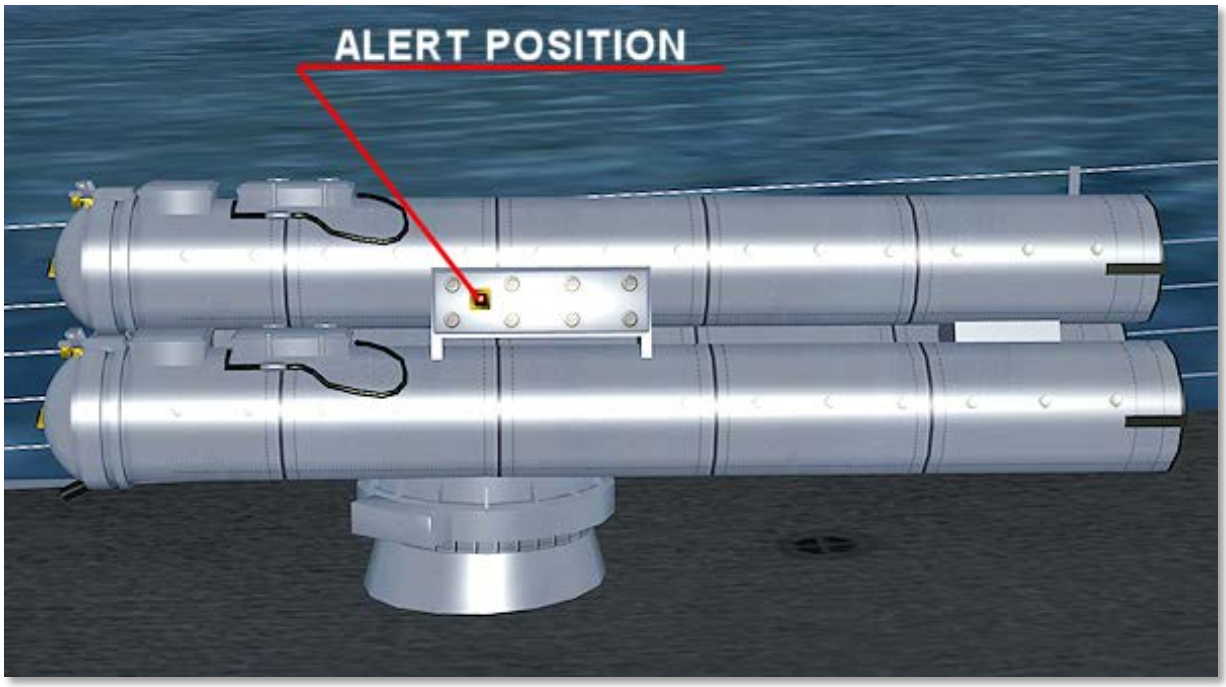
TORPEDO LAUNCHERS

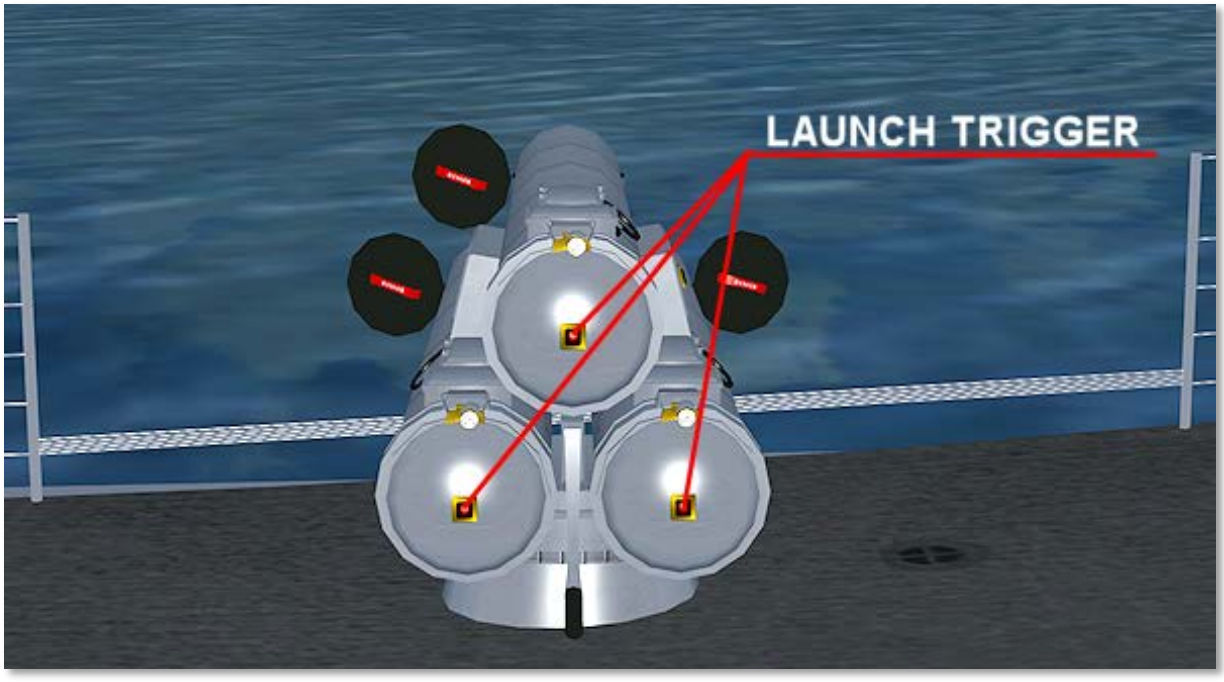
Parameters:

- Range:……. 1000m
- Delay firing:……. 3.5 sec.

Operating:

Because torpedo launcher has 3.5 sec. delay, you can always watch the shot from the outside. Procedure as below.



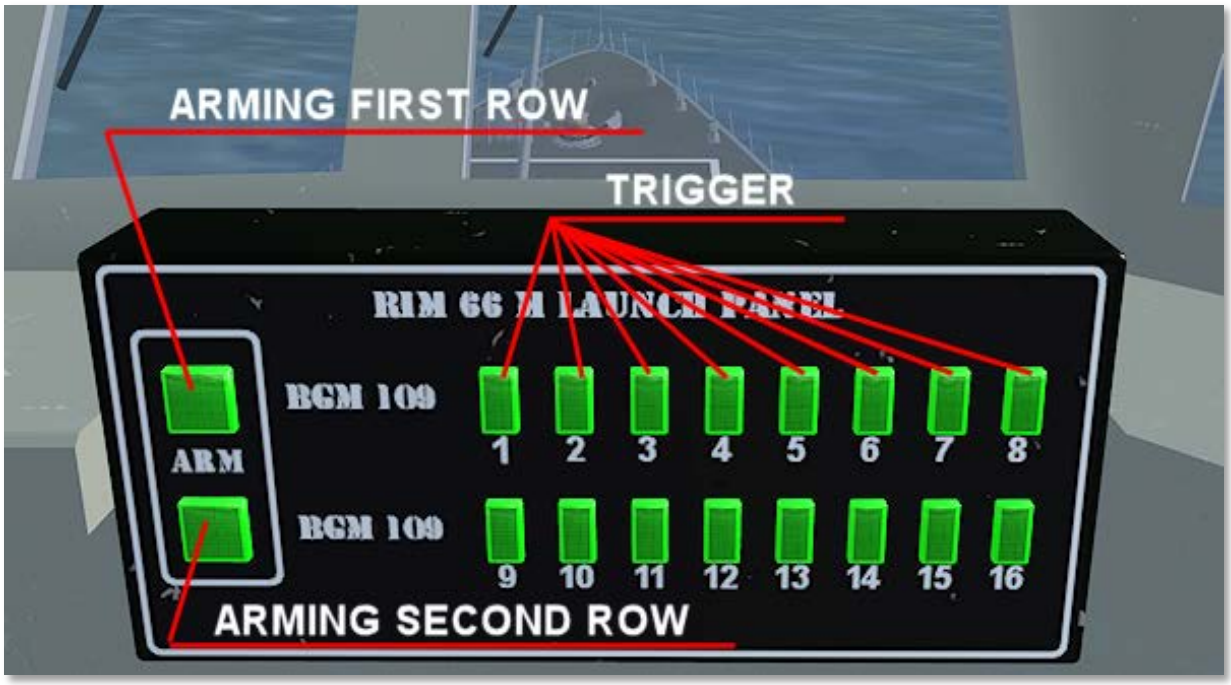


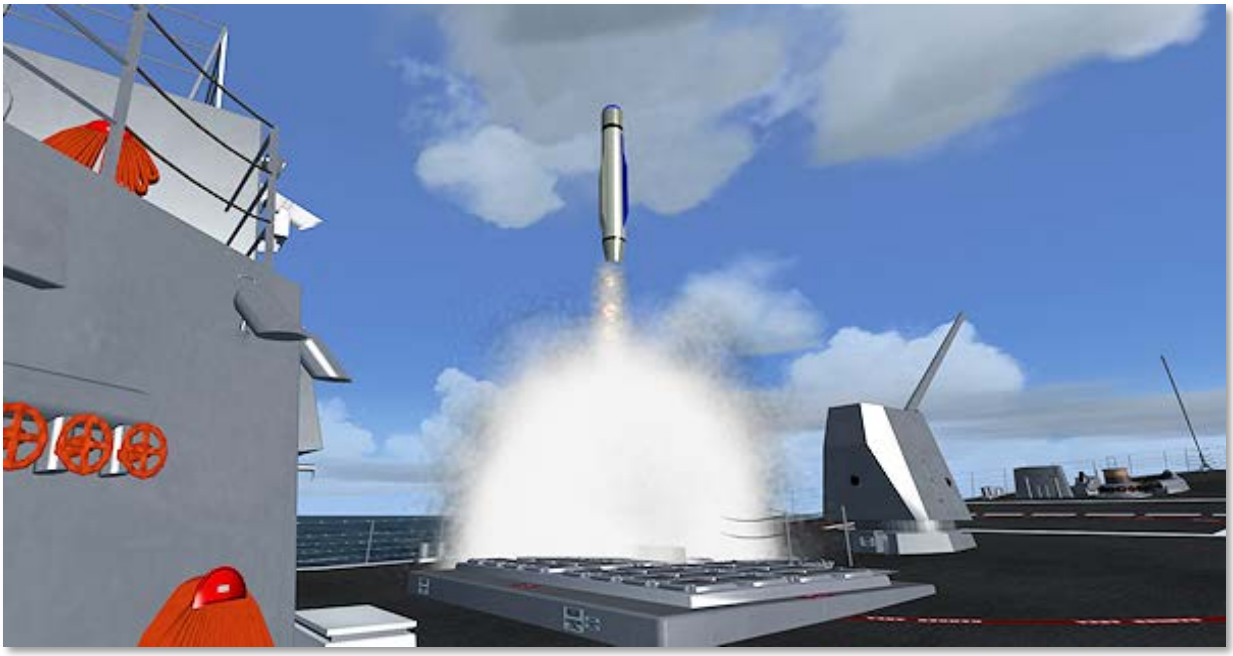
MISSILE LAUNCHERS

PARAMETERS:

range:…….here 3km + explosion.

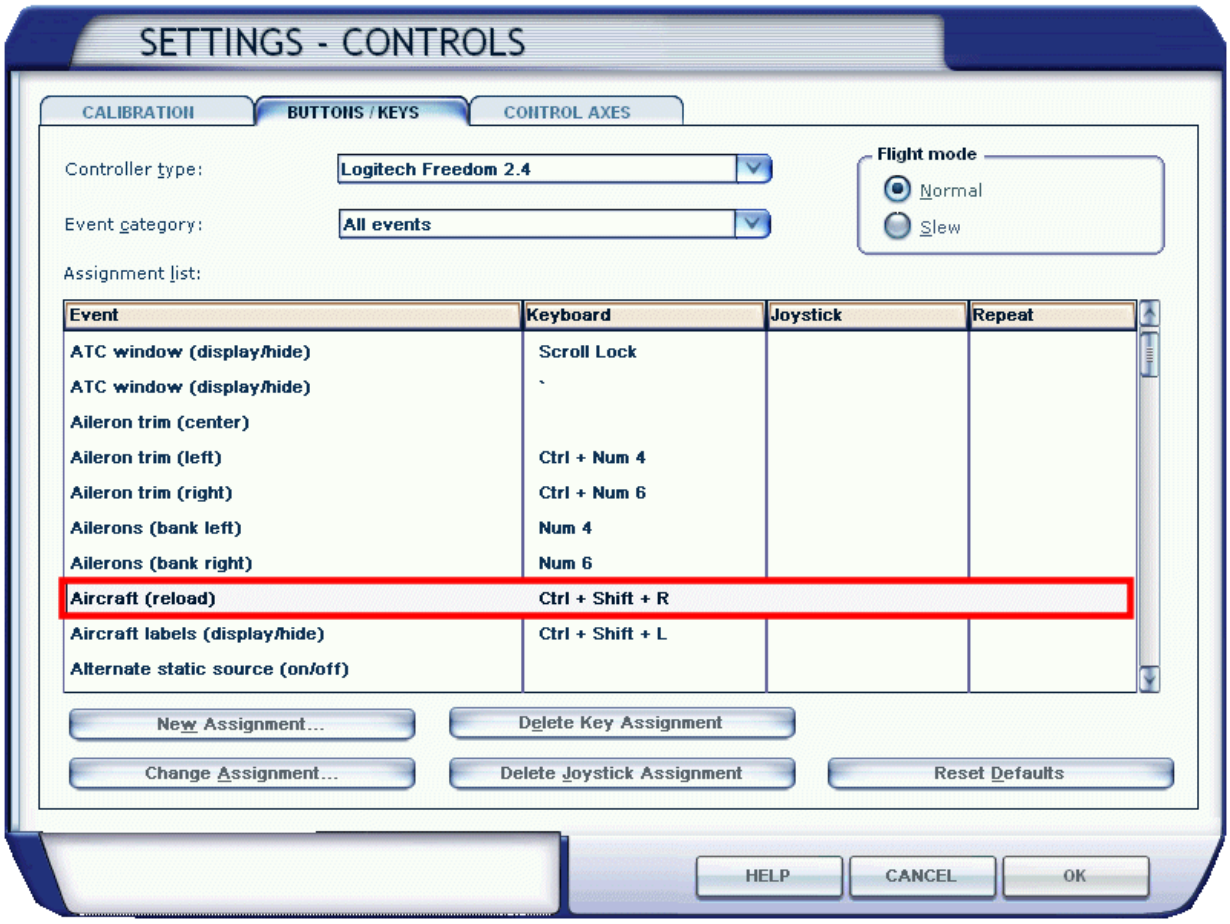
All ships are equipped with 16 missiles SM2 launched from the captain bridge through special console – as below. Launcher has 5 sec. delay, so you can watch start of each missile from the outside. MK-41 vertical launch system has animated pressure hatches and launcher chamber covers. To observe the launch from outside, you have defined camera view.





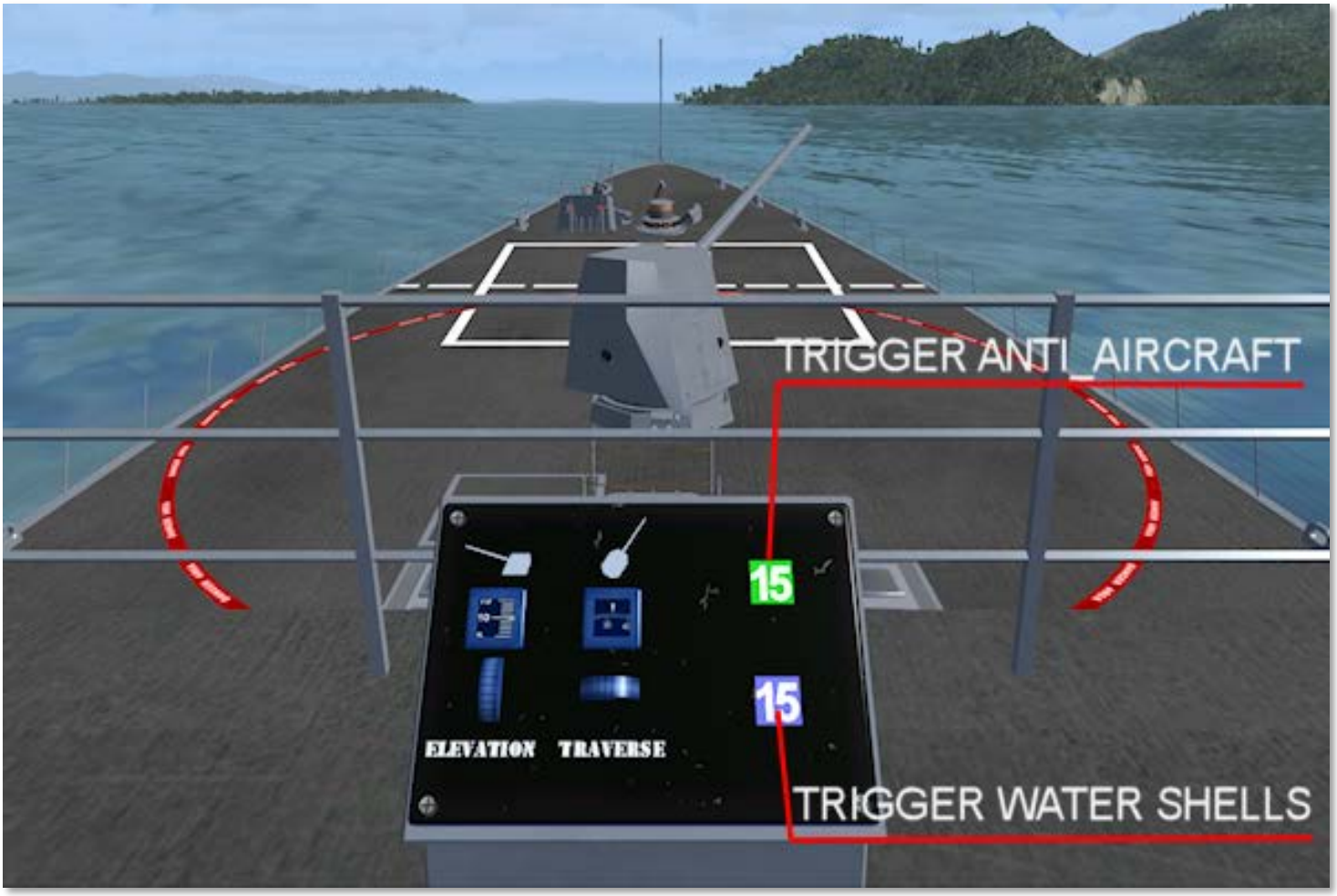
BOW CANNON 127MM

DDG destroyer has bow cannon caliber 127mm. In this case you have cartridge for 30 missiles (30 shots) for firing in one session. 15 shots for cannon type: armor-piercing or anti-aircraft and 15 for cannon type: water- shells. What is one session? The session is the time needed to launch all missiles - 30 to 0.
When you will have all empty cartridges you must RELOAD the ship. After reload, the position, course etc. will stay the same like previously, the cartridges will full again.
How to RELOAD the ship?
Go to the: SETTINGS / CONTROLS then you will see the SETTINGS - CONTROL window. Choose: BUTTON / KEYS bookmark. Next choose ALL EVENTS at events category and mark AIRCRAFT (reload) - how below, then make new assignment (if it is empty)



Cannon console

Cannon console is located outside the bridge for better shots observation. There is adjuster for angle of inclination and turret rotation. Console has two types of trigger. First (green color) for armor-piercing and anti-aircraft, second (blue color) for water-shells. After each firing, number of missiles decreases until it reaches zero.



Parameters:

Range: air …….2800 m. with 2 sec. delay

land …….3000 m. with 2 sec. delay

HELIPAD HANDLING

All three ships has landable helipads with place (nest) to handle and control helicopter landing process. Also there is special lights system and traffic lights for helicopter landing.

TYPES OF LIGHTING:

- Green flood deck lights (permanent at night)
- Green flood deck stronger lights (for helicopter landing)
- Red flashing warning lights
- Red, yellow and green lights (deck closed, clean up, clear to land – coupled with control preparation for landing)
- Blue hull edge warning lights

Console has all clearly described and supports:

- Wipers
- Cabin lights
- Clean up system
- Additional flood lights
- Edge lights

Deck closed

Clear to land

Attention!

Helipad deck is hardened only to the line of hangars.

HANGAR SECTION

Both hangars are the same (mirror image) but with the exception of the gantry which is in the right hangar. The gantry has moving: crane, carriage, ropes, hook and cargo box – all independently controlled using the buttons in the wall console – as below.

CONTROL:

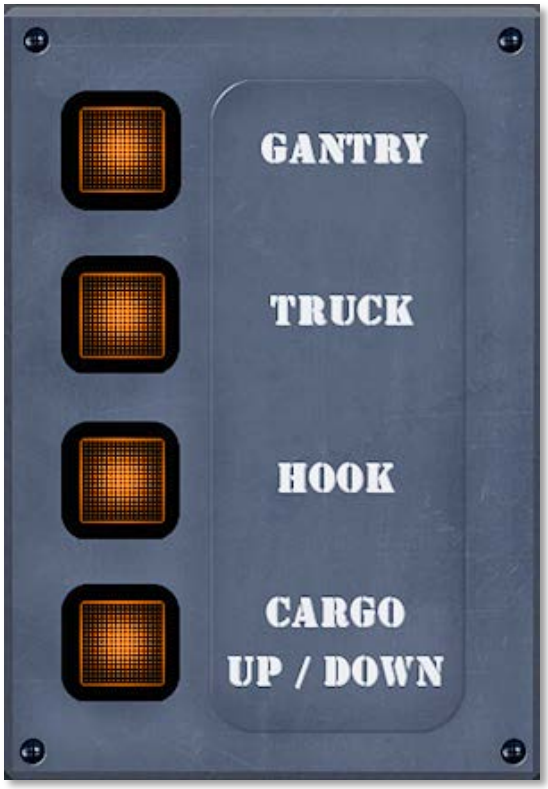
GANTRY ……all crane movements

TRUCK ……..truck with hook movements

HOOK ……hook with ropes movements

CARGO …….hanging and dropping cargo

Stages – as below



Hangar door controlled:

Left door ……..SHIFT+E

Right door ……SHIFT+E+2

TIPS & TRICKS

THE KEYS

WALK:

SHIFT + ENTER ---------- UP
SHIFT + BACKSPACE ---------- DOWN
CTRL + SHIFT + ENTER ---------- RIGHT
CTRL + SHIFT + BACKSPACE ----------LEFT
CTRL + ENTER ---------- BACK
CTRL + BACKSPACE ---------- FORWARD

VIEW:

SPACE + MOUSE MOVING ---------- THE BEST AND QUICK : ZOOM, MOVING, TURNS
F9 ---------- VC
F10 ---------- MINI PANEL (EMPTY)
F11 ---------- SPOT, TOWER
F12 ---------- TOP DOWN
A ---------- TOGGLE CAMERA
S ---------- TOGGLE VIEW
- ---------- ZOOM (-)
+ ---------- ZOOM (+)
CTRL + SHIFT ---------- TOGGLE ZOOM (-,+)
CTRL + SPACE ---------- RESET VC VIEW TO DEFAULT

VIEW BY CAMERA DEFINITION:

INSIDE : F9 >>> SHIFT + S >>> A, A, A, A.....
OUTSIDE : F 10 >>> SHIFT + S >>> A, A, A, A.....

ENGINE:
F2 ---------- REVERS ENGINE (AND QUICK BREAK)
F3 ---------- SLIGHTLY FORWARD
F4 ---------- FULL POWER
F1 ---------- POWER OFF
* , - (NUMPAD) ---------- ADDITIONAL BREAK

RUDDER STEERING:

0 (NUMPAD) ---------- LEFT ----------> carefully, with sense
ENTER (NUMPAD) ---------- RIGHT ----------> carefully, with sense
5 (NUMPAD) ---------- STRAIGHT

- Please, don't manipulate the boat configuration file because changing even a single digit lead disaster which will not be corrected (*cfg. and *air files)

- If you mix panel switches with keyboard keys the control light will lost correct relation of events, I mean, if you change a variant of boat without engine stop, your new variant will sail without correct control light of engine (start-stop) - for lights simply push L key twice. The same concern other moving parts controlled by the switches.

THE PRINCIPLE FOR MOVING PARTS AND LIGHTS IS:

USE SWITCHES ONLY, ALL IS CONTROLED BY THE SWITCHES ONLY – two exceptions – SHIFT+E and SHIFT+E+2 for hangar door

KNOWN FSX BUGS:

The lights and effects do not have a centric axis (move around the ellipse) so there may be offset relative to other objects. This bug can not be fixed.

TEST

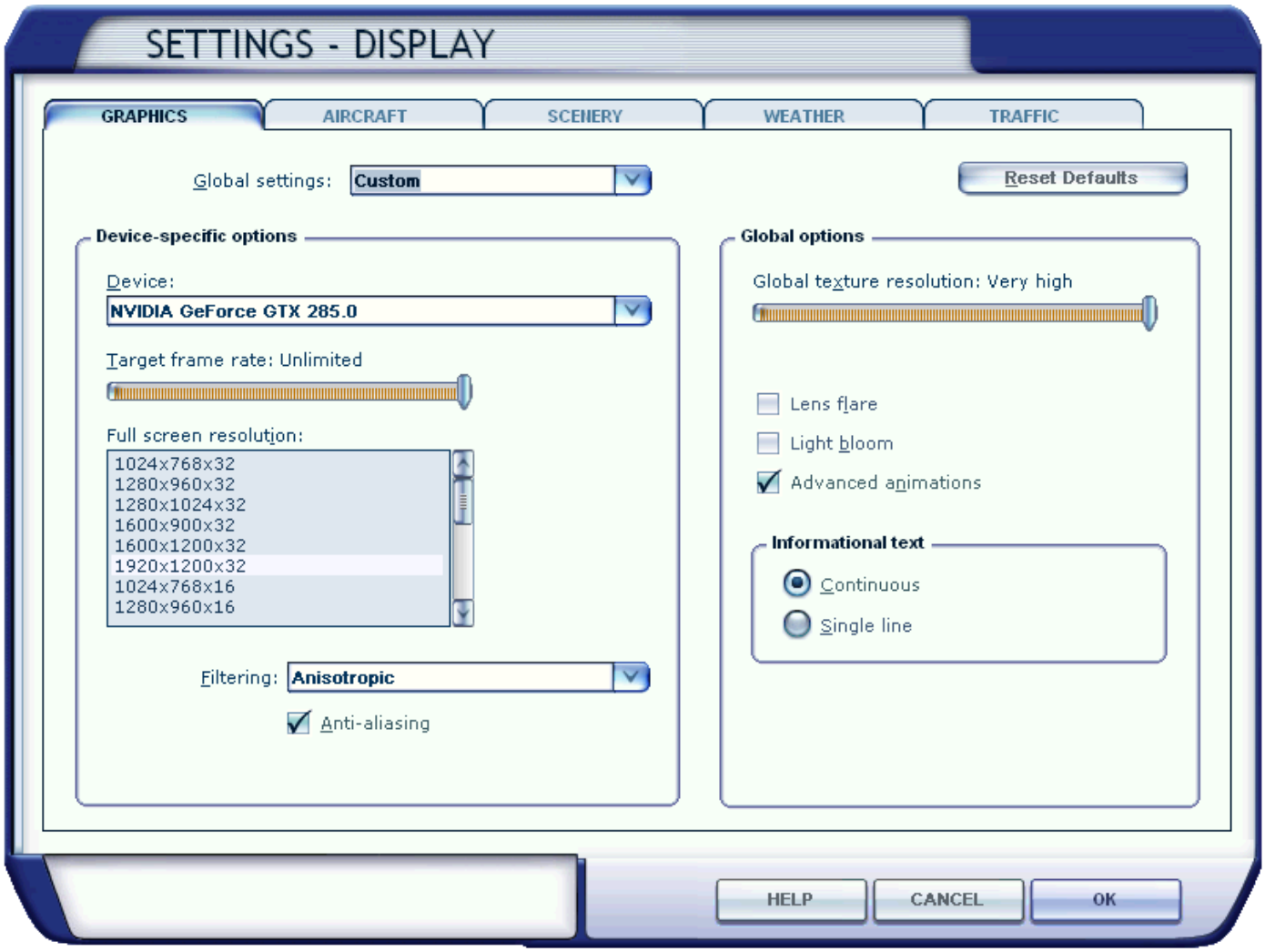
TEST MACHINE

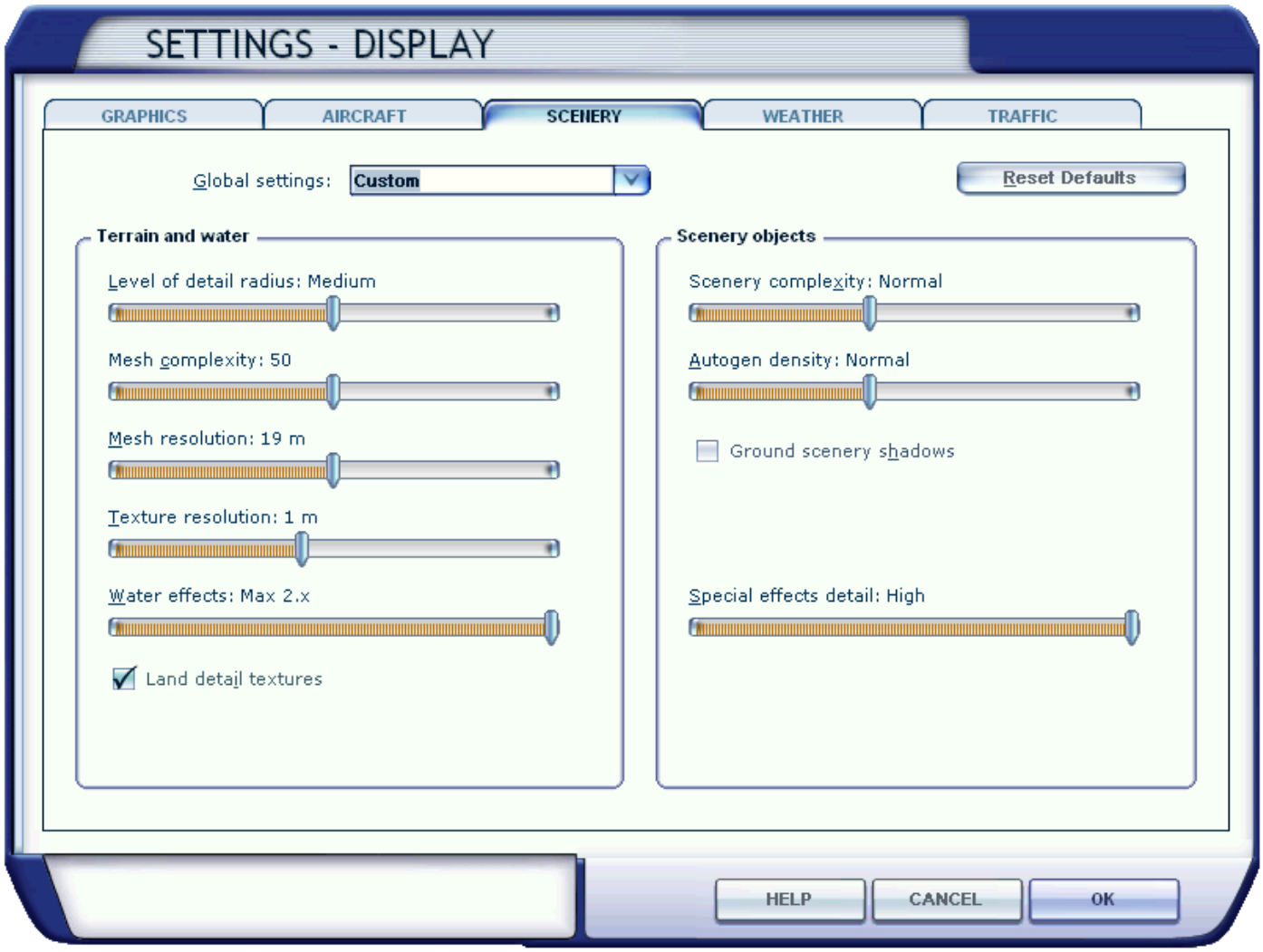
- Microsoft Windows XP Pro SP3
- Intel Core Duo E8500 3.16 GHz
- 4 GB RAM
- NVIDIA GeForce GTX 285 2GB RAM
- Screen resolution: 1920x1200

TEST PRINCIPLE

- Frames are measured in specific locations
- Given number of frames averaged
- Measured at 17.00
- Test performed in the Caribbean

SETTINGS FOR BOTH TESTS





TEST 1

Open Sea, static……42 frames / sec.

Open Sea, in motion ……..32 frames /sec.

TEST 2

Princess Juliana, Caribbean, static ……..33 frames /sec.

Princess Juliana, Caribbean, in motion ……..24 frames /sec.

CONTACT

All comments and observations please send an email:

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